



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,678	06/30/2000	Curtis A. Vock	005127.01044	1240

22908 7590 07/08/2009  
BANNER & WITCOFF, LTD.  
TEN SOUTH WACKER DRIVE  
SUITE 3000  
CHICAGO, IL 60606

EXAMINER
----------

CHARIOUI, MOHAMED

ART UNIT	PAPER NUMBER
----------	--------------

2857

MAIL DATE	DELIVERY MODE
-----------	---------------

07/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/607,678	<b>Applicant(s)</b> VOCK ET AL.	
	<b>Examiner</b> MOHAMED CHARIOUI	<b>Art Unit</b> 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 6/2/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21,23,25-35 and 37-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21,23,25-35 and 37-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/2/09 has been entered.

**DETAILED ACTION**

2. Applicant cancelled claims 1-20, 22, 24 and 36.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 21, 23, 25-35, 37 and 38** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added limitation “a vehicle that is attached to the mobile participants” is a subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Art Unit: 2857

4. **Claims 39-43** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added limitation “a vehicle attached to the mobile participant” is a subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. **Claims 21, 23, 25-34** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites “a vehicle that is attached to the mobile participants” in lines 8-9. It is unclear from the claim how the vehicle is attached to the participants. Therefore, claims 21, 23, 25-34 are considered to be indefinite.

6. **Claims 35, 37 and 38** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 35 recites “a vehicle that is attached to the mobile participant” in lines 10-11. It is unclear from the claim how the vehicle is attached to the participant. Therefore, claims 35, 37 and 38 are considered to be indefinite.

Art Unit: 2857

7. **Claims 39-43** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 recites “a vehicle that is attached to the mobile participant” in line 11. It is unclear from the claim how the vehicle is attached to the participant. Therefore, claims 39-43 are considered to be indefinite.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 21, 27-31, 35, 37, 38-41 and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli (U.S. Patent Number 6,148,271) in view of Heitzman et al. (U.S. Patent number 4,716,458) and Pejas et al. (U.S. Patent Number 5,696,481).

**As per claims 21 and 35**, Marinelli teaches a base station (i.e. monitor unit) for outputting at least one performance metric (see col. 2, lines 60-65); one or more mobile sensing units for attachment with mobile participants in a competitive event within a competitive event area wherein the one or more mobile sensing units are for transmitting wireless data representing at least one performance metric (see col. 2, lines 25-30; col. 4, lines 36-48; col. 5, lines 29-55; and Fig. 1); and at least one relay unit for placement proximate to the competitive event area, the at least one relay unit being remote from the mobile sensing units and the base station, the at least one relay unit for

Art Unit: 2857

receiving the wireless data representing the at least one performance metric from the sensing units (see col. 2, lines 47-52 and col. 18, lines 35-49).

Marinelli does not teach at least one camera for capturing at least one image and transmitting data representing said at least one image to the base station to correlate with the wireless data representing at least one performance metric, wherein the camera is for attachment to a vehicle.

Heitzman et al. teach a camera, positioned in the vehicle, for capturing images of the driver and the position of the steering wheel as operated by the driver and provide a real-time correlation of the captured images and the recorded performance data (see Abstract; col. 1, lines 5-11; col. 2, line 65 through col. 3, line 5; col. 3, lines 40-64; and col. 4, lines 6-26). It would have been obvious to one having ordinary skill in the art at the invention was made to incorporate Heitzman et al. teaching into Marinelli's teaching because it would represent the vehicle's performance capability in real time superimposed upon the driver's view of the roadway ahead and the present steering wheel position. Therefore, the manner in which the driver utilizes the vehicle's capabilities in performing maneuver would be evaluated.

Marinelli does not teach that vehicle is attached to the mobile participants.

Heitzman et al. teach testing the vehicle's performance capabilities and recording the driver's actions employed in attaining the recorded performance (see col. 2, line 65 through col. 3, line 5 and col. 3, lines 51-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the vehicle to the driver (i.e. participant) using a seat belt

Art Unit: 2857

to secure the driver to the vehicle seat. Therefore, serious injuries would be prevented of happening to the driver in the case of an accident in the time of driving.

Marinelli does not teach that the at least one relay unit is stationary within the competitive event area and wirelessly transmits the received data to the base station.

Pejas et al. teach this feature (see col. 1, line 58 to col. 2, line 6). It would have been obvious to one having ordinary skill in the art at the invention was made to incorporate Pejas et al. teaching into Marinelli's teaching because it would transmit the data wirelessly to the base station. Therefore, the wiring costs and complications of the relay system would be obviated.

**As per claim 39**, Marinelli teaches detecting, by a mobile sensing unit engaged with a mobile participant in a competitive event within an event area, at least one performance metric of the mobile participant (see col. 2, lines 25-30); transmitting, by the mobile sensing unit, wireless data representing the at least one performance metric (see col. 4, lines 36-48; col. 5, lines 29-55; and Fig. 1);

Marinelli teach a relay unit that transmits and receives data (see col. 2, lines 25-30 and col. 18, lines 45-48).

Marinelli does not teach that the relay unit is stationary within the event area and remotely from the mobile sensing units wirelessly transmits the received data representing the performance metric.

Pejas et al. teach this feature (see col. 1, line 58 to col. 2, line 6). It would have been obvious to one having ordinary skill in the art at the invention was made to incorporate Pejas et al. teaching into Marinelli's teaching because it would transmit the

Art Unit: 2857

data wirelessly to the base station. Therefore, the wiring costs and complications of the relay system would be obviated.

Marinelli does not teach capturing, by a mobile camera coupled to a vehicle an image and correlating the performance metric with the image.

Heitzman et al. teach a camera, positioned in the vehicle, for capturing images of the driver and the position of the steering wheel as operated by the driver and provide a real-time correlation of the captured images and the recorded performance data (see Abstract; col. 1, lines 5-11; col. 2, line 65 through col. 3, line 5; col. 3, lines 40-64; and col. 4, lines 6-26). It would have been obvious to one having ordinary skill in the art at the invention was made to incorporate Heitzman et al. teaching into Marinelli's teaching because it would represent the vehicle's performance capability in real time superimposed upon the driver's view of the roadway ahead and the present steering wheel position. Therefore, the manner in which the driver utilizes the vehicle's capabilities in performing maneuver would be evaluated.

Marinelli does not teach that vehicle is attached to the mobile participant.

Heitzman et al. teach testing the vehicle's performance capabilities and recording the driver's actions employed in attaining the recorded performance (see col. 2, line 65 through col. 3, line 5 and col. 3, lines 51-61).

I would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the vehicle to the driver (i.e. participant) using a seat belt to secure the driver to the vehicle seat. Therefore, serious injuries would be prevented of happening to the driver in the case of an accident in the time of driving.



Art Unit: 2857

**As per claim 40**, Marinelli teaches receiving by the base station, the wireless data representing the performance metric (see col. 2, lines 47-52 and col. 18, lines 35-49).

**As per claims 27, 37 and 41**, Marinelli further teaches a display device electronically coupled to the base station, and wherein the base station outputs the at least one performance metric to the display device (see col. 2, lines 53-65).

**As per claims 28, 38 and 43**, Marinelli further teaches that the at least one performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force (see col. 6, lines 21-34 and col. 3, lines 17-30).

**As per claim 29**, Marinelli further teaches that the at least one performance metric includes a rotation rate or total rotation (see col. 10, lines 34-60).

**As per claim 30**, Marinelli further teaches that the at least one performance metric includes a rotation component (see col. 4, lines 36-48).

**As per claim 31**, Marinelli further teaches that the at least one or more sensing unit includes an accelerometer (see 2, lines 40-43).

9. **Claim 42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of Heitzman et al. and Pejas et al. and further in view of Jones (U.S. Patent Number 6,292,213).

Marinelli in view of Heitzman et al. and Pejas et al. teach the system as stated above except for transmitting, by the mobile camera, data representing the image.

Jones teaches this feature (see col. 8, line 44 to col. 9, line 15; col. 6, lines 46-67; and Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Jones's teaching into Marinelli in view of Heitzman et al. and Pejas et al.'s teaching because images would be captured and sent to the base station to be displayed; therefore, viewers would be able to visually monitor the participant's movements and judge his/her performance.

10. **Claim 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of Pejas et al. and Boyd et al. (U.S. Patent Number 5,023,727).

Marinelli in view of Heitzman et al. and Pejas et al. teach the system as stated above except that the at least one relay unit includes at least two relay units.

Boyd et al. teach this feature (see col. 8, lines 41-56). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Boyd et al.'s teaching into Marinelli in view of Heitzman et al. and Pejas et al.'s teaching because it would provide two relays for transmitting different types of data representing the participant performance to the base station; therefore, the viewer could monitor the participant activities and make better judgment about the participant performance.

11. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of Heitzman et al. and Pejas et al. and Boyd et al. and further in view of Eden et al. (U.S. Patent Number 5,993,335).

Marinelli in view of Heitzman et al. and Pejas et al. and Boyd et al. teach the system as stated above except that the event area is a half pipe event area.

Art Unit: 2857

Eden et al. teach this feature (see col. 1, line 55 to col. 2, line 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Eden et al. teaching into Marinelli in view of Heitzman et al. and Pejas et al. and Boyd et al. teaching because the sport's arena would be a half pipe area. Therefore, participants would be able to use the ramps of the half pipe to gain speed and perform better rotations to earn better scores.

12. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view Heitzman et al. and Pejas et al. and Shea (U.S. Patent Number 6,430,453).

Marinelli in view of Heitzman et al. and Pejas et al. teach the system as stated above except for a scoreboard and that the base station displays at least one performance metric on the scoreboard.

Shea teach this feature (see col. 1, line 55 to col. 2, line 9 and col. 3, lines 30-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Shea's teaching into Marinelli in view of Heitzman et al. and Pejas et al.'s teaching because the performance scores of the participants would be displayed on a scoreboard. Therefore, viewers would be able to compare scores to determine the one among the participants who performed the best.

13. **Claims 32-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of Heitzman et al. and Pejas et al. and Mickelson (U.S. Patent Number 6,163,021).

Art Unit: 2857

Marinelli in view of Heitzman et al. and Pejas et al. teach the system as stated above except that the one or more mobile sensing units includes one or more magnetic field sensing device.

Mickelson teaches a magnetic field sensing device (see col. 2, line 36 to col. 3, line 20 and col. 3, line 58 to col. 4, line 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Mickelson's into Marinelli in view of Heitzman et al. and Pejas et al.'s teaching, because the magnetic field sensor would provide an electrical signal that represents the angular orientation of the participant relative to the reference axis, therefore the pitch and the roll angles would be determined in addition to the performance metric parameters of interest to better analyze the participant's performance.

#### ***Response to Arguments***

14. Applicant's arguments with respect to claims 21, 23 and 25-35 and 37-43 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Contact information***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Charioui whose telephone number is (571) 272-2213. The examiner can normally be reached Monday through Friday, from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone

Art Unit: 2857

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohamed Charioui

7/3/09

/Mohamed Charioui/

Examiner, Art Unit 2857